

Meteorological data summary for November 2023 for the Blenheim Meteorological station located at the Grovetown Park campus of the Marlborough Research Centre.

Table 1: Weekly weather data during November 2023

	Mean (°C) Deviation	Mean Max (°C)	Mean Min (°C)	Rainfall (mm)	Sunshine (hours)	Wind-run (km)
1 st - 7 th	15.5 (+0.6)	21.0 (+1.0)	9.9 (+0.2)	9.8	46.6	194.6
8 th - 14 th	14.4 (-0.5)	20.4 (+0.4)	8.3 (-1.4)	2.8	60.5	247.1
15 th - 21 st	16.5 (+1.6)	21.9 (+1.9)	11.1 (+1.4)	3.4	50.4	233.4
22 nd - 28 th	15.0 (+0.1)	21.7 (+1.7)	8.4 (-1.3)	6.4	79.2	257.1
29 th - 30 th (2 days)	13.5 (-1.4)	18.3 (-1.7)	8.8 (-0.9)	0.0	7.6	183.0
1 st - 30 th November 2023	15.2 (+0.3)	21.1 (+1.1)	9.4 (-0.3)	22.4 (45%)	244.3 (102%)	229.7 79%
November LTA (1986 - 2022)	14.9	20.0	9.7	50.2	239.8	290.0

LTA – Long Term Average

November 2023 recorded slightly above average mean temperature and sunshine hours, and well below average rainfall and wind-run.

Sunshine

244.3 hours sunshine for November is 102% of the long-term average (LTA) for November of 239.8 hours.

November 2022 recorded 257.1 hours sunshine.

November 2021 recorded 228.2 hours sunshine.

November 2020 recorded 180.0 hours sunshine.

Total sunshine for the 11 months January to November 2023 is 2247.3 hours; 99.5% of the LTA of 2258.3 hours.

Sunniest towns in November 2023

Cromwell	267.3 hours
Richmond	263.5 hours
New Plymouth	252.4 hours (provisional)
Appleby	251.4 hours (provisional)
Tekapo	250.1 hours
Blenheim	244.3 hours

Sunniest town in New Zealand

Totals to the end of November 2023:

Richmond	2392.7 hours
Tekapo	2325.6 hours
Appleby	2279.8 hours (provisional)
New Plymouth	2255.4 hours (provisional)
Blenheim	2247.4 hours (145.3 hours behind Richmond)
Cromwell	2218.2 hours

Blenheim languished in sixth place for sunniest town in New Zealand in November. The picture is no better for the total for the 11-months January to November, with Blenheim in fifth place. Richmond is 145.3 hours ahead of Blenheim at the end of November and it has a large lead over Tekapo in second place. With one month to go it looks fairly certain that Richmond will take out the title for sunniest town in New Zealand in 2023..

Rainfall

Rainfall total of 22.4 mm is 45% of the LTA for November of 50.2 mm.

November 2022 rainfall was 72.6 mm

November 2021 rainfall was 14.2 mm

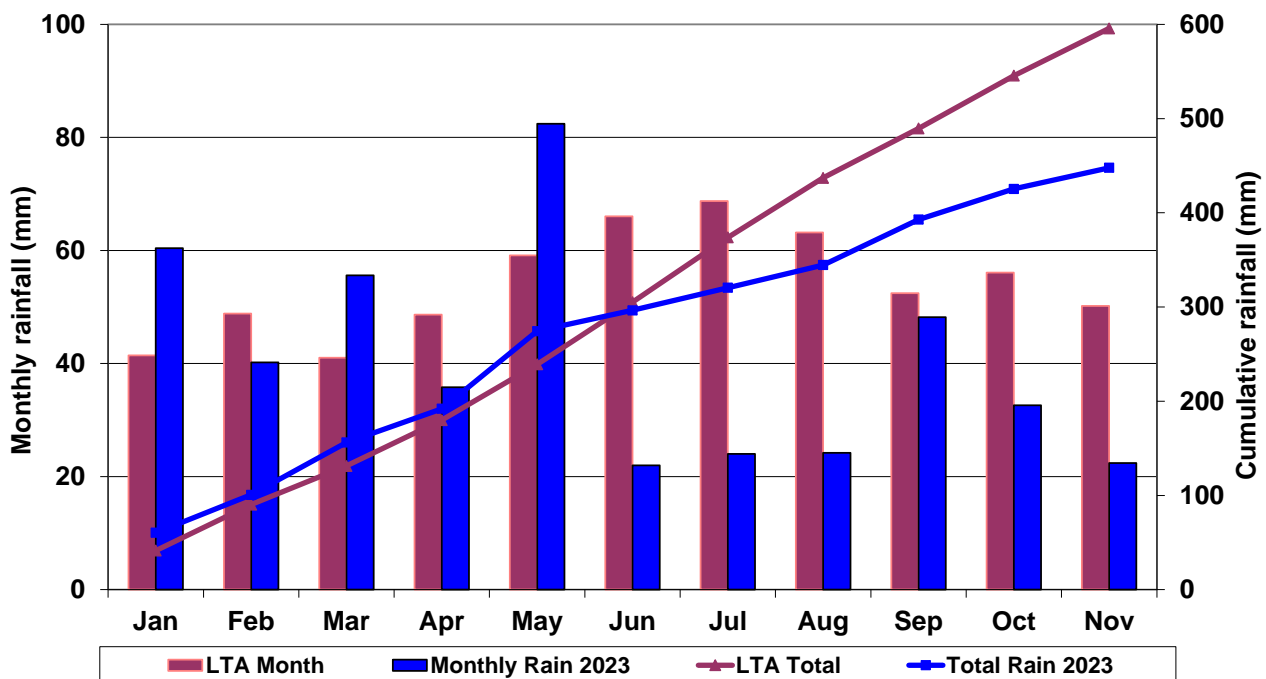
November 2020 rainfall was 81.8 mm

November 2015 rainfall was 2.8 mm (lowest total on record 1930-2016)

Total rainfall for the 11 months January to November 2023 is 447.8 mm; 75% of the LTA of 595.7 mm. In marked contrast, January to November 2022 recorded 781.8 mm, or 186.1 mm more rainfall.

Blenheim's LTA annual rainfall total is 644.1 mm (1986-2022). With only one month to go in 2023, and if December receives low rainfall, it looks as if total rainfall for the year will be among the 10 lowest years on record for the 94 years 1930 to 2023.

Blenheim's monthly and total rainfall, January to November 2023, compared to the long-term average



Soil moisture

Shallow soil moisture (0 to 35 cm depth) at the Grovetown Park weather station on 1 November 2023 was 25.8%, slightly below the average value at the start of November (2003 to 2022) of 27.1%. With low rainfall during the month the soil moisture had fallen to 17.5% by 30 November, which was well below the LTA on 30 November of 21.9%. At the end of November there is little available moisture left in the topsoil, as it is bone dry by the time it reaches about 14.5%. Hence the reason that lawns have dried out fairly rapidly during the latter half of November.

Temperature

Mean temperature of 15.2°C was 0.3°C above the LTA temperature for November of 14.9°C.

November 2022 mean temperature was 16.5°C.

November 2021 mean temperature was 16.3°C.

November 2020 mean temperature was 15.2°C.

November 2023 is the 11th year in a row (2013-2023) when the November mean temperature has been above average.

The hottest maximum air temperature of 30.0°C was recorded on 23rd November. This was the hottest November day since 26 November 2019, which recorded 30.8°C.

The coldest minimum air temperature of 3.4°C was recorded on both 11th and 26th November.

The coldest minimum grass temperature of -0.9°C was recorded on 11th November.

Wind Run

Average daily wind run during November 2023 was 229.7 km; 79% of the LTA wind-run for November of 290.0 km. The windiest day of the month was 13 November, with total wind-run of 454 km and average wind speed of 18.9 km/hr. The calmest day of the month was 6 November, with total wind run of 138 km and average wind speed of 5.75 km/hr. The absolute maximum wind speed during the month was 56.5 km/hr recorded on 24 November.

While it may seem as if there was quite a lot of wind during November, there were only 5-days during the month that recorded above the LTA daily wind-run of 290 km. The 4-days from 13 to 16 November all recorded above average wind-run.

All 11 months to the end of November 2023 have recorded below average wind-run.

Evapotranspiration (ET)

Total Evapotranspiration for November was 128.5 mm, or 105% of the LTA of 122.7 mm.

Water Deficit (rainfall minus evapotranspiration)

Total water deficit for November was -106.1 mm. The LTA is -76.3 mm.

Spring Summary – September to November 2023

Table 2: Monthly sunshine, rainfall and mean temperature over spring in 2023 compared to average

Month	Sunshine Hours 2023	Sunshine Hours LTA	Rainfall mm 2023	Rainfall mm LTA	Mean temp °C 2023	Mean temp °C LTA
September	178.0	196.1	48.2	52.4	12.1	11.1
October	277.5	231.1	32.6	56.1	13.1	13.2
November	244.3	239.8	22.4	50.2	15.2	14.8
Total Sun & Rain Mean temp	699.8	667.0	103.2	158.7	13.5	13.0

Sunshine

September to November 2023 recorded 699.8 hours sunshine, 105% of the long-term average.

Rainfall

September to November 2023 recorded 103.2 mm rain, 65% of the LTA.

The low spring rainfall followed on from very low rainfall over winter of 70.2 mm. Total rainfall for the 6-months June to November 2023 was 173.4 mm, 49% of the LTA total of 356.7 mm.

Temperature

September to November 2023 recorded a mean temperature of 13.5°C. This was 0.5°C above the LTA (1986-2022). 2023 is the eighth year in a row when the mean temperature in spring has been above average (2016-2023).

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